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[Please amend claim 49 as follows:]

50. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 41, including a programming interface present between the digital signal processor and the host to facilitate communication of a plurality of commands and status signals.

Remarks

Applicant has renumbered the claims beginning with the second claim 26 on page 29 through and including claim 49 on page 36. These claims are now renumbered 27 through 50.

Applicant respectfully submits that no new matter is being added by the above amendments, as the amendments are fully supported in the specification, drawings and claims as originally filed.

Attached hereto is a marked-up version of the changes made to the specification by the current amendments. The attachment is captioned "Version with Markings to Show Changes Made." If there are any questions regarding this paper, or which might otherwise further this case onto allowance, please contact the undersigned at (513) 241-2324.

If any petition for extension of time is necessary to accompany this communication, please consider this paper a petition for such an extension of time, and apply the appropriate

extension of time fee to Deposit Account 23-3000. If any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,



Thomas W. Humphrey
Reg. No. 34,353

Wood, Herron & Evans, L.L.P.
2700 Carew Tower
441 Vine Street
Cincinnati, OH 45202-2917

Voice: (513) 241-2324
Facsimile: (513) 421-7269

Version With Markings to Show Changes Made

Second claim 26 has been amended as follows:

27[26]. A method of synchronizing a digital audio signal with a corresponding digital video signal according to claim 19, wherein the second video synchronization signal is the next generated video synchronization signal immediately following the transmission of the stop command from the host.

Claim 27 has been amended as follows:

28[27]. A data transmission apparatus for synchronizing an audio signal with a video signal, comprising:

an audio generating means for generating an audio frame;

a video generating means for generating a video frame and a plurality of video synchronization signals;

a digital signal processor operable to temporarily store the audio frame, then encode the audio frame in response to a first video synchronization signal;

a host microprocessor operable to send command signals to, and to set the encoding parameters of the digital signal processor application.

Claim 28 has been amended as follows:

29[28]. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 28[27], wherein the digital signal processor must first receive a start command from a host prior to encoding the audio frame.

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Claim 29 has been amended as follows:

30[29]. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 28[27], wherein the first video synchronization signal is the next generated video synchronization signal immediately following the transmission of the start command from the host.

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Claim 30 has been amended as follows:

31[30]. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 28[27], wherein the DSP comprises an encoder, a buffer and a controller.

Claim 31 has been amended as follows:

32[31]. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 31[30], wherein the encoder includes a number of registers

for storing data being processed, an arithmetic and logic unit
5 (ALU) for performing logical (e.g., AND, OR, XOR) operations as
well as arithmetic (addition, multiplication, division)
operations, and a parallel-connected bit shifting unit for
performing bit shifting and masking.

Claim 32 has been amended as follows:

33[32]. A method of synchronizing a digital audio
signal with a corresponding digital video signal according to
claim 31[30], wherein the controller is operable to accept and
transfer audio frames and communications from and to the encoder.

Claim 33 has been amended as follows:

34[33]. A method of synchronizing a digital audio
signal with a corresponding digital video signal according to
claim 31[30], wherein the buffer is operable to store and
transfer audio frames.

Claim 34 has been amended as follows:

35[34]. A data transmission apparatus for
synchronizing an audio signal with a video signal according to
claim 28[27], wherein a plurality of video synchronization
signals are generated periodically.

Claim 35 has been amended as follows:

36[35]. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 28[27], wherein the digital signal processor transmits the audio frame to the multiplexor upon encoding the audio frame.

Claim 36 has been amended as follows:

37[36]. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 28[27], including a programming interface present between the digital signal processor and the host to facilitate
5 communication of a plurality of commands and status signals.

Claim 37 has been amended as follows:

38[37]. A data transmission apparatus for synchronizing an audio signal with a video signal according to above claim 37[36], wherein the status signals include responses from the digital signal processor to host confirming the
5 execution of the host's instructions.

Claim 38 has been amended as follows:

39[38]. A data transmission apparatus for synchronizing an audio signal with a video signal according to the claim 37[36], wherein the plurality of commands include

communications from the host to the digital processor authorizing
5 the execution of processing functions, requesting status signals
and setting encoding parameters.

Claim 39 has been amended as follows:

40[39]. A data transmission apparatus for
synchronizing an audio signal with a video signal according to
claim 28[27], further comprising a demultiplexor means for
separating the audio signal and the video signal from a
5 multiplexed signal in accordance with a control signal, prior to
generation.

Claim 40 has been amended as follows:

41[40]. A data transmission apparatus for
synchronizing an audio signal with a video signal, comprising:
an audio generating means for generating an audio
frame;
5 a video generating means for generating a video
frame and a plurality of video synchronization signals;
a digital signal processor (DSP) operable to count
the number of samples of an audio frame representing a time
duration equal to the difference between a second video
10 synchronization signal and a last encoded sample of the audio
frame in response to receiving a stop command;

a host microprocessor operable to generate and transmit the start command to the digital signal processor; multiplexor means for combining the encoded audio
15 signal with the video signal.

Claim 41 has been amended as follows:

42[41]. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 41[40], wherein the digital signal processor transmits to the host a value corresponding to the time required to process
5 the counted audio frames.

Claim 42 has been amended as follows:

43[42]. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 41[40], wherein the second video synchronization signal is the next generated video synchronization signal immediately
5 following the transmission of the stop command from the host.

Claim 43 has been amended as follows:

44[43]. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 41[40], wherein the DSP comprises an encoder, a buffer and a controller.

Claim 44 has been amended as follows:

45[44]. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 44[43], wherein the encoder includes a number of registers for storing data being processed, an arithmetic and logic unit (ALU) for performing logical (e.g., AND, OR, XOR) operations as well as arithmetic (addition, multiplication, division) operations, and a parallel-connected bit shifting unit for performing bit shifting and masking.

Claim 45 has been amended as follows:

46[45]. A method of synchronizing a digital audio signal with a corresponding digital video signal according to claim 44[43], wherein the controller is operable to accept and transfer audio frames and communications from and to the encoder.

Claim 46 has been amended as follows:

47[46]. A method of synchronizing a digital audio signal with a corresponding digital video signal according to claim 44[43], wherein the buffer is operable to store and transfer audio frames.

Claim 47 has been amended as follows:

48[47]. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 41[40], wherein a plurality of video synchronization signals are generated periodically.

Claim 48 has been amended as follows:

49[48]. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 41[40], wherein the digital signal processor transmits the audio frame to the multiplexor upon encoding the audio frame.

Claim 49 has been amended as follows:

50[49]. A data transmission apparatus for synchronizing an audio signal with a video signal according to claim 41[40], including a programming interface present between the digital signal processor and the host to facilitate
5 communication of a plurality of commands and status signals.